IN THE SPECIFICATION:

After entry of the Preliminary Amendment filed April 15, 2004 please enter the following amendments:

Please AMEND the paragraph at page 2, lines 8-15 to read as follows

In the booklet of Motorola Inc. SG 73/D Rev. 17, 1998 of the Master Selection Guide series, an integrated battery charger circuit type MC 33340P is described that can detect the decrease of the battery voltage by a sensitivity of 4 mV. ~~The required~~ Useful accuracy, for the objectives of the invention, ~~is~~ may be much higher than this value, and it ~~is~~ may not be sufficient to detect the decrease of the voltage only, ~~one has~~it is desirable to determine the tendency of the change as well. ~~The~~ Determining the tendency means ~~the~~ making a determination as to whether the signal has decreased by a predetermined extent, whether it has increased at least by that extent or whether it has remained unchanged i.e. the fluctuations have not exceeded the predetermined level. The battery voltage starts decreasing after it has reached its maximum. There are several types of batteries, wherein there is no sudden maximum but rather a steady voltage condition through a longer period of time, and the life of the battery gets reduced when it is charged throughout that voltage plateau.

Please AMEND the paragraph at page 2, lines 24-27to read as follows:

In case of very small changes of voltage signals, prior to the present invention, there ~~is~~ was no kind of reliable and accurate means available ~~that would be able~~ to detect the steepness of the changes or the persistence of an unchanged state of the signal. The knowledge of such parameters would be, however, desirable in several ~~fields of the technique~~ applications of the invention.

Please ADD the following paragraph at page 3, line 13:

Furthermore, the invention provides a method for determining an end-of-charge moment ~~of~~ for a battery being charged, the method comprising the steps of:
- periodically sampling an electrical parameter of the battery, said parameter being selected from the group consisting of the battery voltage and the charging current;
- determining at each sampling the change in the value of said electrical parameter compared with the value taken in the immediately previous period; and
- generating an end-of-charge signal when said change in value lies below a predetermined threshold level of change.

Please AMEND the paragraph at page 3, lines 16-20 to read as follows:

One object of the invention is to provide a method that makes possible both the safe detection of the slow and small changes of a direct current voltage and the determination of the tendency of the changes~~, wherein~~ Other objects lie in providing a method and apparatus which can detect ~~the~~ changes that are ~~by~~ three decimal orders of magnitude smaller than the DC voltage level.

Please AMEND the paragraph at page 4, line 28 to page 5, line 11 to read as follows:

In the circuit shown in Fig. 1 the signal to be monitored is a direct current voltage of a battery, and its line is coupled to input terminal 1. A controlled switch 2, ~~realized~~ activated by a contact of relay 10 or by a high quality electronic switch, is connected in series with the input terminal 1. The other wire of the switch 2 is connected to an arm of a capacitor 3 of precision design, and the other arm of capacitor 3 is connected to resistor 4 and to the positive input of a controlled amplifier 5 that comprises a feedback loop. The output of the controlled amplifier 5 is coupled through a branch to its own negative input, whereas the branch comprises a potentiometer 6 and an RC member, also connected to the negative input. The potentiometer 6 is adapted for adjusting the amplification. When a short unipolar voltage pulse is coupled to the positive input of the controlled amplifier 5 and it decays, under the effect of the feedback a half-wave

pulse will appear at the output that has an inverse phase relative to the pulse at the input.

Please AMEND the paragraph at page 7, lines 14-28 to read as follows:

As described, the change of the voltage of the input signal in a sampling period causes a voltage wave at the output of the controlled amplifier 5. Depending on the fact whether the input voltage has increased or decreased, this voltage wave starts with a positive or negative half wave. The width of the voltage window of the window comparator 7 is adjusted by the threshold voltages of comparison +UK and -UK to be substantially smaller than the amplitude of this wave. The ~~comparation~~ comparison window should ~~by~~ be symmetric to the output DC level of the controlled amplifier 5, and the symmetry can be adjusted by the potentiometer 12. Fig. 3c indicates that the positive threshold of comparison +UK is crossed twice by the voltage lead to the signal input of the comparator 7 in the first half period of the full wave. In accordance with this fact the upper output of the comparator 7 associated with the upper (positive) crossing of the threshold a pulse shown in Fig. 3d will appear. In the second half period the voltage signal will cross twice the lower (negative) threshold of comparison -UK, and at this time a pulse shown in Fig. 3e will appear at the lower comparator output associated with the lower threshold crossings.

Please AMEND the paragraph at page 11, lines 14-24 to read as follows:

The end-of-charge condition of a battery is often related to a threshold condition in which the change of the battery voltage or current in a given time period drops below a predetermined small value as is described hereinabove. It may happen that, owing to short term noises on the line voltage or sudden changes of the line voltage, the threshold condition can be fulfilled even if the end-of-charge condition is not met. To filter out such disturbing effects it may be useful to monitor the changing battery voltage or current through a small number of sampling periods, and to initiate the end-of-charge condition only if the threshold condition is reached in a majority of these

periods. In this way it may be possible to prevent ~~a single~~ signal noise or random disturbances from affecting the safe determination of the end-of-charge condition.

Please INSERT the following paragraph at page 9, line 18:

The circuit shown in Fig. 1 can determine the change of voltage signals only. In several fields of technique there are numerous tasks, in which the change of other characteristics like temperature or current has to be detected. In case if the examined parameter is a voltage or it can be converted to a voltage signal easily, as it is the case at sensing temperature values, the circuit shown in Fig. 1 can be used without any change. In case, however, if the examined characteristics is represented by the peak value of a pulsating signal sequence, the situation will not be easy anymore, because conventional ways of peak detection are associated with offset errors higher than the required sensitivity. Such a peak detection task can be found at such charging processes of batteries in which the change of the charging current should be detected or the moment should be known when the peak values have stabilized.

The charging current is constituted by a pulsating direct current, wherein the pulsation can be converted to a voltage pulse sequence by means of a conventional current-to-voltage converter.